expert

SANYO

1681

TP-1012

SERVICE MANUAL

STEREO TURNTABLE

SPECIFICATIONS

Motor	DC brushless motor
Drive system	Direct drive
Speeds	33-1/3 and 45 rpm
Speed control range	Individual controls: ±4%
Speed change	Electronic type
Wow & flutter	0.04% WRMS
Signal to noise ratio	Better than 60 dB
Turntable platter	12" (30.5 cm) 2 lbs. 4 ozs. (1 kg)
Tone arm	Static-balance type
Tracking error	±1.5°
Tracking force range	0 – 3g.

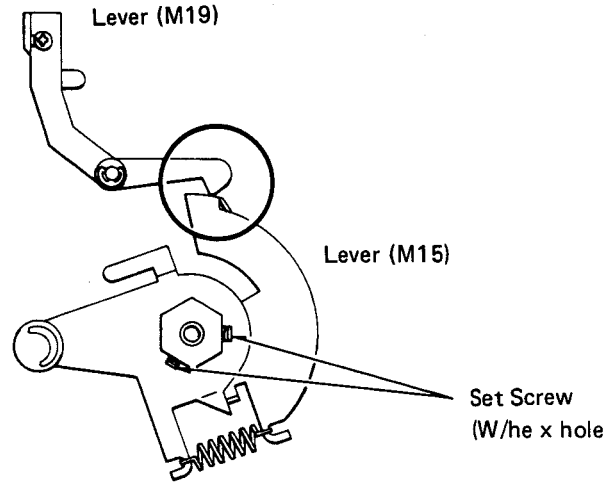
Cartridge	Magnetic stereo cartridge (MG-10J)
Stylus	0.5 mil diamond stylus (ST-10J)
Stylus pressure	1.5 – 2.5 g.
Frequency responce	20 – 20,000Hz
Overhang	15 mm
Channel separation	Better than 25 dB
Power source	AC: 110/125/220V, 50/60Hz
Power consumption	12W
Dimensions	Approx. 17-3/16"(W) x 5-3-/4"(H) x 14-1/4"(D) (441 x 145 x 357 mm)
Weight	Approx. 13 lbs. 4 oz. (6 kg)

* Specifications and design are subject to change without notice.

ADJUSTMENT

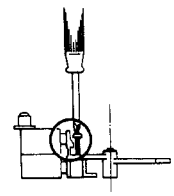
ADJUSTMENT OF TONEARM LEVER

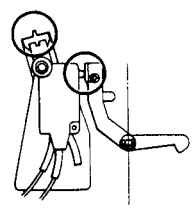
Set the turntable unit upside down after putting the tonearm on the arm rest and securing it.
Then, loosen the set screw (w/hex hole) and position the lever (M15) in such a way that the protrusion of the micro-switch contacts the foremost end of the lever.

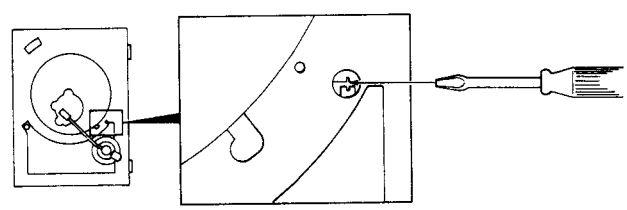


ADJUSTMENT OF MICRO-SWITCH

a. When the needle in the arm has reached a point between 35 to 38 mm of the outer edge of the record, insert the screwdriver in the hole shown in the figure and adjust the micro-switch so that the turntable begins to revolve or the neon lamp lights up.
b. As you move the arm toward the turntable, the lever (M19) pressing down on the micro-switch will become disengaged and the turntable will begin to revolve or the neon lamp will light up. In order to make certain that, whichever of these two actions takes place, the other will be activated by the arm within a distance of 5 mm, use the nut 2.6 x 10 mm (Y 9) to adjust the timing.

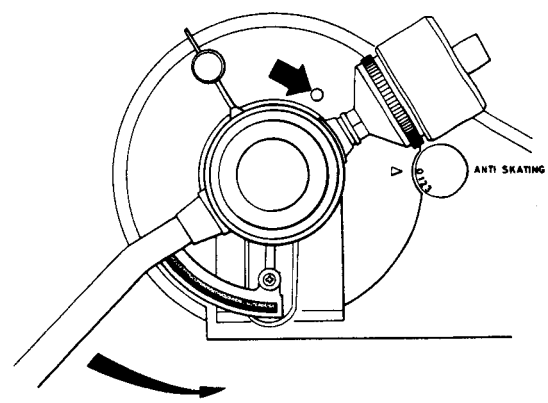






ADJUSTMENT OF AUTO-RETURN

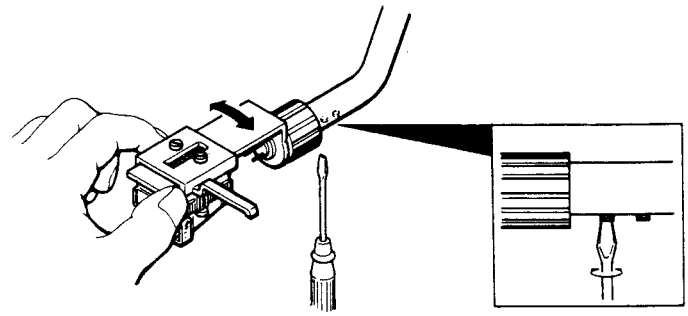
There is a shaft which is accessible with an ordinary screwdriver through the hole below the tonearm. (See illustration at right.) When the stylus has reached a point approximately 55mm from the turntable center, turn the shaft clockwise or counterlockwise and select a position where it actuates the auto-return.



ADJUSTMENT

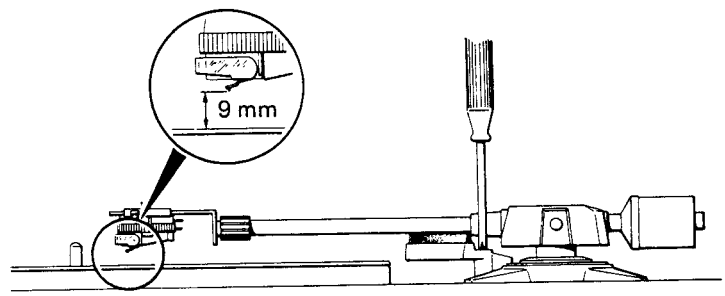
ADJUSTMENT OF HEADSHELL

The headshell attached to the tonearm should not be inclined either to the right or to the left. If necessary, loosen the two screws on the bottom of the tubular arm and adjust the headshell. Be sure that the stylus is normal to the record surface.



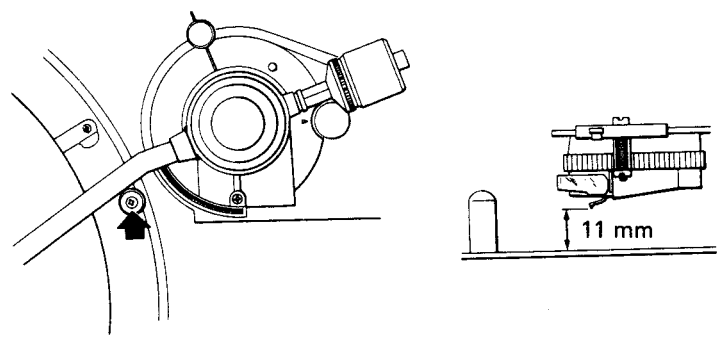
ADJUSTMENT OF TONEARM LIFTER

Set the cuing lever to UP and the distance between the stylus and the record to about 9mm by adjusting the arm lifter screw.



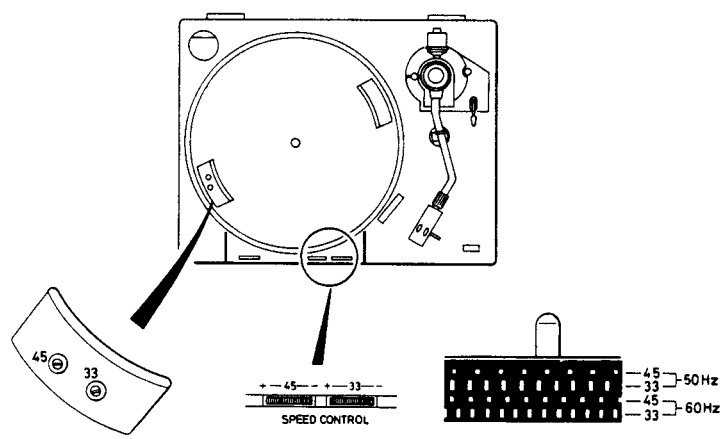
ADJUSTMENT OF LIFT-UP LEVER SPRING

Switch off power when the auto-return has worked and adjust spring tension to provide a clearance of 11mm between the stylus and the record.



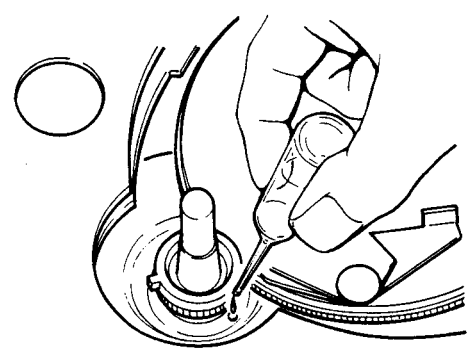
ADJUSTMENT OF TURNTABLE SPEED

Set the fine speed control dials to their center positions (each has three protrusions, of which only one can be set to the center). Make adjustment by inserting a screwdriver into the holes. When properly adjusted, the zebra stroboscope marks on the turntable platter seem to be stationary at the selected speed.

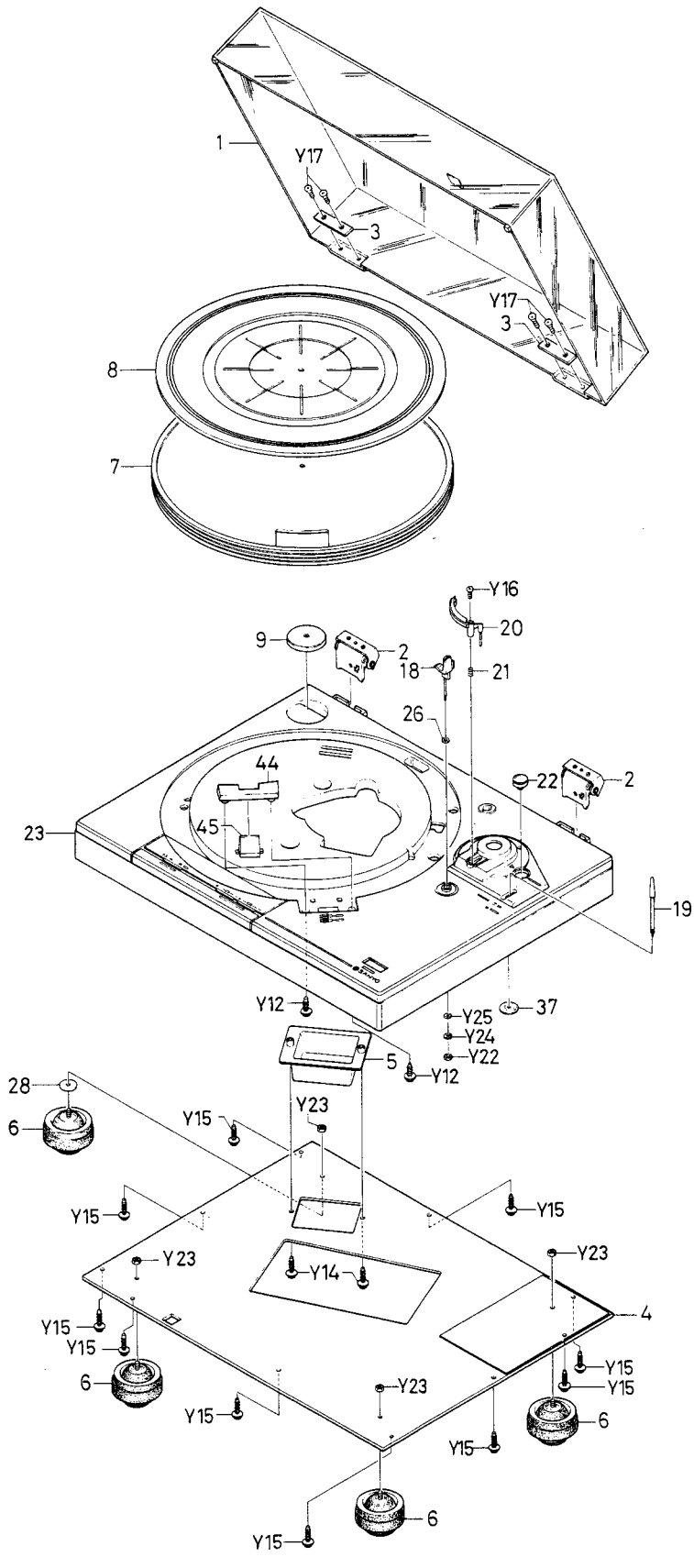


REPAIR

Dismount the turntable platter and supply two to three drops of oil into the DC motor through the hole in the motor housing. Be careful not to stain any exposed part with oil. This caution is necessary to prevent operating trouble.



CABINET EXPLODED VIEW

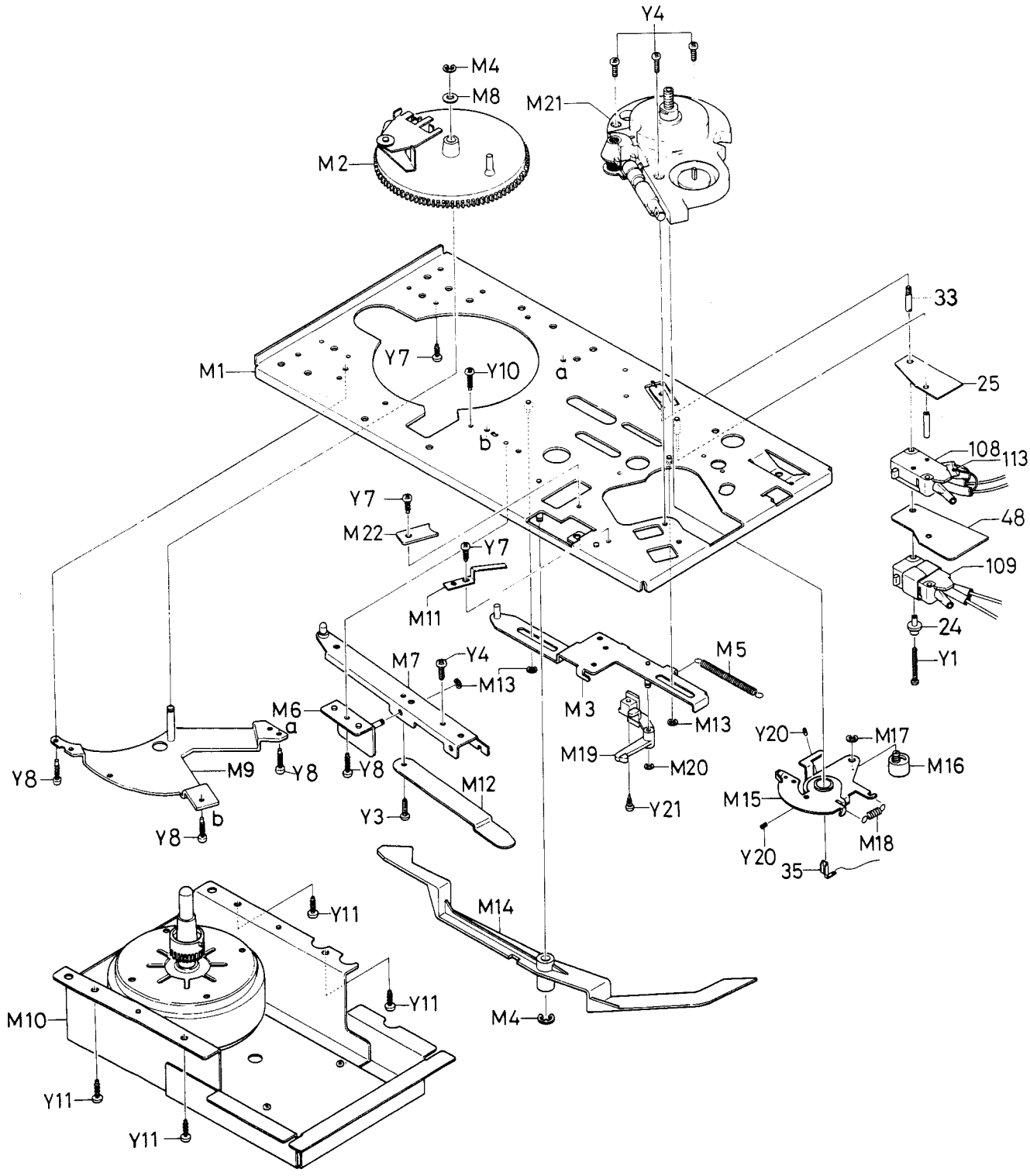


PARTS LIST

Ref. No.	Part No.	Description	Q'ty
	PACKING		
	141-6-113T-85506	Individual Carton	1
	141-6-144T-49600	Styrol Filler, Set	2
	141-6-316T-79800	Pad, Top Side	1
	141-6-316T-80000	Pad, Turn Table	1
	141-6-316T-88500	Pad, Dust Cover	1
	141-6-316T-80100	Pad, Side	2
	141-6-231T-60700	Inner Polyethylene Bag, Set	1
	141-6-231T-35400	Inner Polyethylene Bag, Turn-Table & Sheet	2
	141-6-231T-25300	Inner Polyethylene Bag, Instruction Manual	1
	141-6-231T-10200	Inner Polyethylene Bag, Power Cord & Out-put Cord	2
	141-6-231T-10100	Inner Polyethylene Bag, Belonging	3
	141-6-410T-16305	Instructional Manual	1
	141-6-451T-11800	Guarantee Card	1
	141-2-337T-10400	Ribbon, Arm Fixed, 12 x 300mm	1
	141-2-184T-07000	Tape, Cartridge Cover, 12 x 100mm	1
	141-2-862T-00400	Driver, Tuning	1
	CABINET		
1	141-0-194T-00732	Dust Cover Assembly	1
2	141-2-251T-06102	Hinge	2
3	141-2-351T-37300	Bracket Mounting, Dust Cover Mtg.	2
4	141-2-126T-25400	Back Lid	1
5	141-2-135T-48500	Cover, PT	1
6	141-0-174T-05701	Stand Assembly	4
7	141-2-118T-00400	Turn Table	1
8	141-2-246T-11500	Sheet, Turn Table	1
9	141-2-352T-19900	Spacer, 45 Adaptor	1
10	141-2-368T-07801	Heat Sink	1
11	123-2-472R-00401	Lug, Wire Spring (15) Fixer	1
12	141-2-163T-41100	Rotary Knob, Speed Selector	2
13	141-0-361T-14800	Bracket Resistor Assembly, Speed Select & Speed Control	1
14	141-2-742T-07300	Lever, Reject	1
15	141-2-852T-50600	Wire Spring, Reject	1
16	141-2-683T-28900	Ring, Reject	1
17	141-2-851T-73300	Coil Spring, Reject	1
18	141-0-873T-00202	Rest Assembly, Arm Rest	1
19	141-0-742T-07200	Lever Assembly, Arm Lifter	1
20	141-0-872T-00201	Lifter Assembly	1
21	141-2-855T-14200	Coil Spring, Lifter Mtg.	1
22	141-2-163T-53800	Rotary Knob, IFC	1
23	141-2-121T-14408	Deck Panel	1
24	141-2-461T-28900	Pipe, Micro Switch	1
25	141-2-352T-24800	Spacer, Micro Switch (108) Mtg.	1
26	141-2-683T-32401	Ring, Arm Rest	1
27	141-2-852T-45700	Wire Spring, Lead Retainer	1
28	141-2-352T-25300	Spacer, Adjust Height of Leg	1
29	141-2-447T-45700	Cushion, Reject Wire (15)	1
30	141-2-472T-01201	Lug, Lead Retainer	8
31	141-2-464T-08700	Fixer, Motor Lead Retainer	1
32	141-0-365T-38401	Bracket Switch Assembly, Reject	1
33	141-2-421T-12400	Special Screen, Micro Switch mtg.	1
34	141-2-184T-07201	Tape 18 x 24 mm, Strobo	1
35	141-2-472T-06800	Lug, Arm Bearing Flange Mtg.	1
36	141-2-411T-03901	Plate Nut, Mechanism Chassis Mtg.	2
37	141-2-241T-19400	Veil, Lever Cover	1
38	141-2-322T-43300	Shield Plate, under the Output Cord P.C.B.	1
39	141-2-340T-00200	Rope, Lead Retainer of Arm	1
40	141-2-464T-30000	Fixer, Output Cord (103)	2
41	141-2-329T-05700	Refrector, Strobo	1
42	141-2-445T-16200	Rubber Cushion, Power Supply Cord (102)	1
43	141-2-445T-16000	Rubber Cushion, Output Cord (103)	1
44	141-2-151T-15302	Decorative Panel, Strobo Base	1
45	141-2-131T-17300	Clear Window, Strobo	1
46	123-2-453R-10500	Plastic Washer, Power Cord Fixed	1
47	141-2-445T-13302	Rubber Cushion, Neon Lamp Mtg.	1
48	141-2-352T-24701	Spacer, Micro Switch (109) mtg.	1

Ref. No.	Part No.	Description	Q'ty
	ELECTRICAL PARTS		
101	4-251T-89100	Power Transformer 110/125/220V	1
102	4-243T-77172	Power Supply Cord	1
103	4-243T-15100	Leed Cord, Out-put Cord	1
104	141-4-230T-66700	Printed Circuit Board Assembly, Power supply	1
SVR1, 2	4-222T-39574	Semi Fixed Variable Resistor 5K ohm (B)	2
Q1		Transistor 2SD612 EK	1
D1		Diode DS-18	1
D2		Diode DS-17	1
D3		Diode WZ-192	1
C1		Electrolytic 330μF, 35WV	1
C3		Electrolytic 100μF, 25WV	1
C2		Electrolytic 10μF, 25WV	1
C4		Ceramic 0.01μF +80—20%, 50WV	1
R2		Solid or Carbon 1.2K ohm, ±10%, 1/2W	1
R3		Metal Oxide Film 5.6 ohm, ±10%, 2W	1
	141-2-464T-08700	Fixer, Electrolytic Capacitor Fixed	1
105	140-4-230T-44200	Printed Circuit Board Assembly, Power Relay	2
106	4-230T-19400	Printed Circuit Board, Out-put Relay	1
107	4-612T-07002	Lamp Assembly	1
	4-612T-07071	Lamp	1
		Carbon, 6.8K ohm ±10%, 1/2W	1
108	4-231T-61900	Micro Switch	1
109	4-231T-61972	Micro Switch, SEMKO	1
110	4-231T-53600	Switch, Voltage Select	1
111	4-222T-66700	Variable Resistor, Speed Adjust 2K ohm (B)	2
112	123-2-472R-00600	Lug, Earth	1
113		Capacitor, Myler 0.047μF, ±20%, 50WV	1
	ARM		
120	141-0-743T-05903	Arm Assembly	1
a	141-2-853T-53901	Plate Spring, Weight Clicker	1
b		Tapping Screw 2 x 4mm, Plate Spring Mtg.	1
c	141-2-687T-01500	Weight	1
d	141-0-687T-01700	Weight Assembly	1
121	141-0-286T-01021	Head Shell Assembly	1
122	141-0-286T-01030	Head Shell	1
123	141-2-445T-20300	Rubber Cushion, Head Connector Mtg.	1
124	4-243T-15800	Lead Cord, LH	1
125	4-243T-15871	Lead Cord, LE	1
126	4-243T-15872	Lead Cord, RH	1
127	4-243T-15873	Lead Cord, RE	1
128	141-2-417T-18100	Stud Nut, Cartridge Mtg.	2
129	141-2-453T-32200	Washer, Cartridge Mtg.	2
130	141-2-687T-01630	Weight	1
131	141-2-742T-13130	Lever, Head Shell Finger	1
132	141-2-421T-23700	Special Screw, Cartridge Mtg.	2
133	4-157T-00801	Cartridge Assembly	1

MECHANISM EXPLODED VIEW

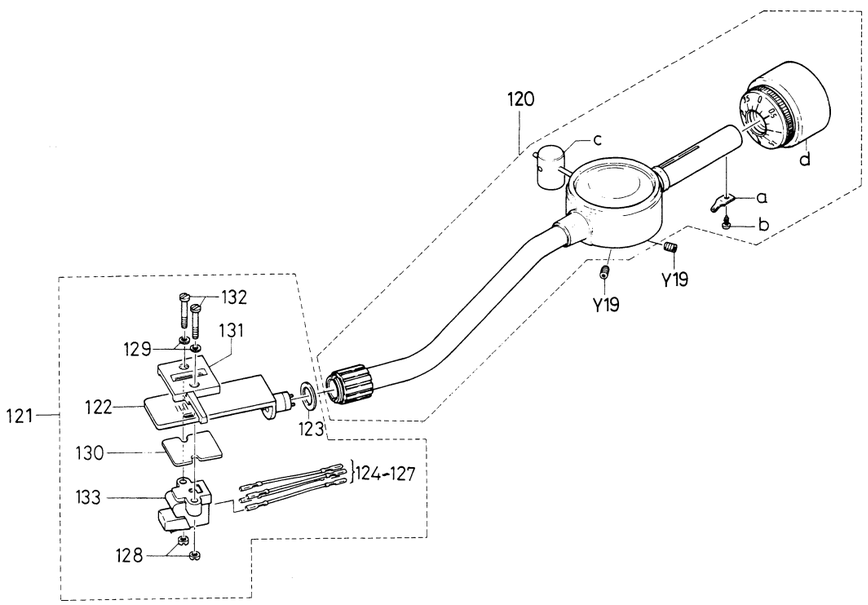


PARTS LIST

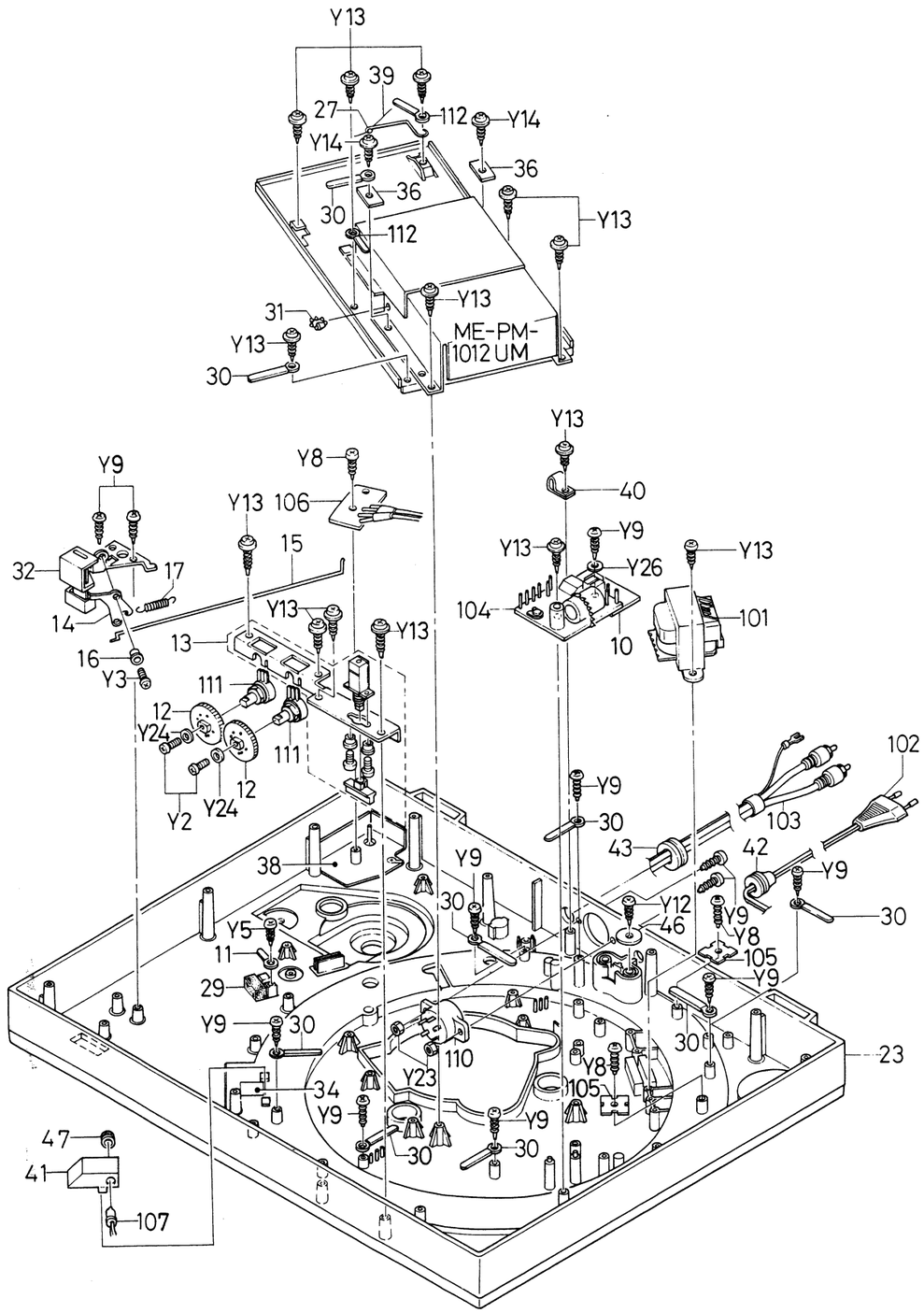
Ref. No.	Part No.	Description	Q'ty
	MECHANISM		
M1	141-0-311T-28600	Chassis Assembly	1
M2	141-0-581T-08900	Gear Assembly	1
M3	141-0-731T-53200	Slide Assembly	1
M4	141-2-457T-23200	Special Washer, Main Gear (M2) & Lever (M14) Mtg.	2
M5	141-2-855T-30000	Coil Spring, Main Slide (M3) restore	1
M6	141-0-747T-04900	Bracket Lever Assembly	1
M7	141-0-742T-06500	Lever Assembly	1
M8	141-2-453T-30701	Washer, GNW 5.2x8x0.25mm	1
M9	141-0-310T-19500	Bracket Assembly Gear (M2) Mtg.	1
M10	4-527T-11501	Brushless Motor Assembly	1
M11	141-2-853T-53400	Plate Spring, Stand (M21) Fixer	1
M12	141-2-853T-51100	Plate Spring, Lift Up	1
M13	141-2-457T-23100	Special Washer, E3	3
M14	141-2-742T-06700	Lever, Trip Lever	1
M15	141-0-742T-06102	Lever Assembly, Arm Lever	1
M16	141-2-753T-52600	Shaft, Auto Return Adjust	1
M17	141-2-457T-23101	Special Washer, Shaft (M16) Mtg.	1
M18	141-2-851T-73500	Coil Spring, Arm Lever (M15) Restore	1
M19	141-2-742T-22300	Lever, Switch Operator	1
M20	141-2-457T-23000	Special Washer, E2	1
M21	141-0-174T-06120	Stand Assembly, Arm Stand	1
M22	141-2-464T-25800	Fixer, Mechanism Chassis (M1) Mtg.	1

Ref. No.	Part No.	Description	Q'ty
	SCREW MOUNTING		
Y1		Pan Head Screw, 2 x 20mm	1
Y2		Pan Head Screw, 2.6 x 6mm	1
Y3		Pan Head Screw, 3 x 6mm	2
Y4		Pan Head Screw, 3 x 8mm	4
Y5		Pan Head Tapping Screw 2.6 x 6mm	1
Y6		Pan Head Tapping Screw 2.6 x 8mm (Rest Assy. (M18) Mtg.)	1
Y7		Pan Head Tapping Screw 3 x 6mm	4
Y8		Pan Head Tapping Screw 3 x 8mm	8
Y9		Pan Head Tapping Screw 3 x 10mm	8
Y10		Pan Head Tapping Screw 3 x 14mm	1
Y11		Pan Head Tapping Screw 3.5 x 8mm	4
Y12		Pan Head Tapping Screw with Washer 3 x 8mm	3
Y13		Pan Head Tapping Screw with Washer 3 x 10mm	17
Y14		Pan Head Tapping Screw with Washer 3 x 12mm	4
Y15		Pan Head Tapping Screw with Washer 3 x 14mm	10
Y16		Flat Head Screw 3 x 10mm	1
Y17		Flat Head Screw 4 x 12mm	4
Y18		Headless Screw 3 x 6mm (Rest Assy. (M18) Mtg.)	1
Y19		Headless Screw 4 x 6mm	2
Y20		Headless Screw with Hexagon Holde 3 x 4mm	2
Y21		Self Tapping Screw 2.6 x 10mm	1
Y22		Nut 2.6mm	1
Y23		Nut 3mm	6
Y24		Spring Washer 2.6mm	2
Y25		Washer 2.6mm	2
Y26		Washer 3mm	1

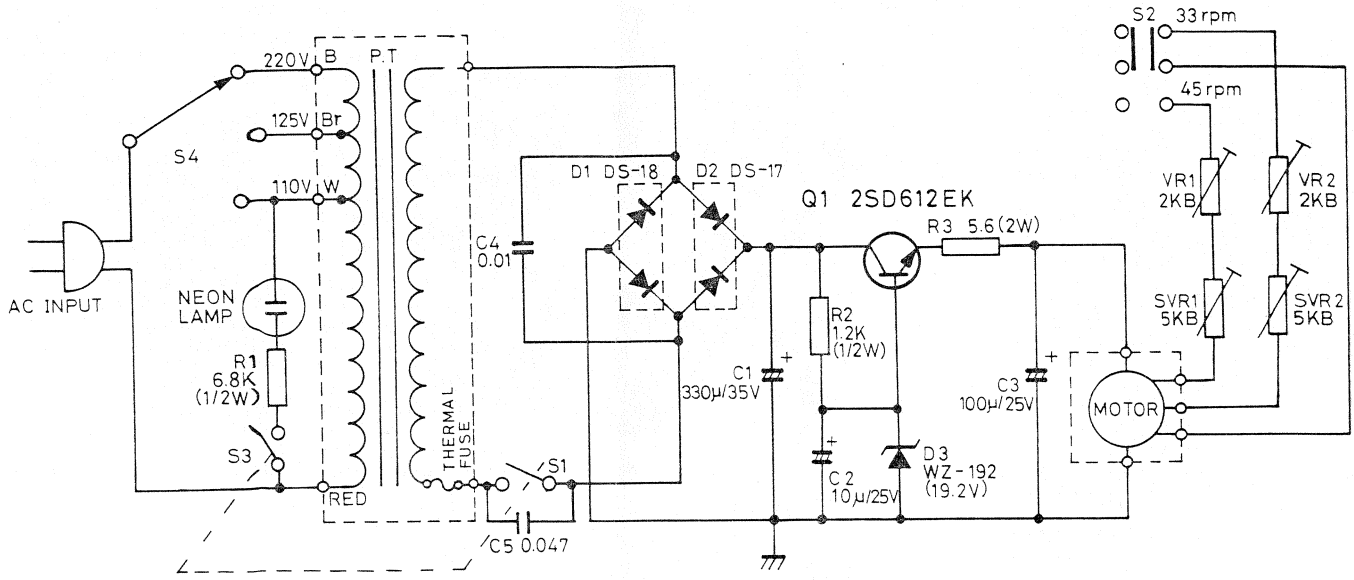
ARM EXPLODED VIEW



CHASSIS EXPLODED VIEW

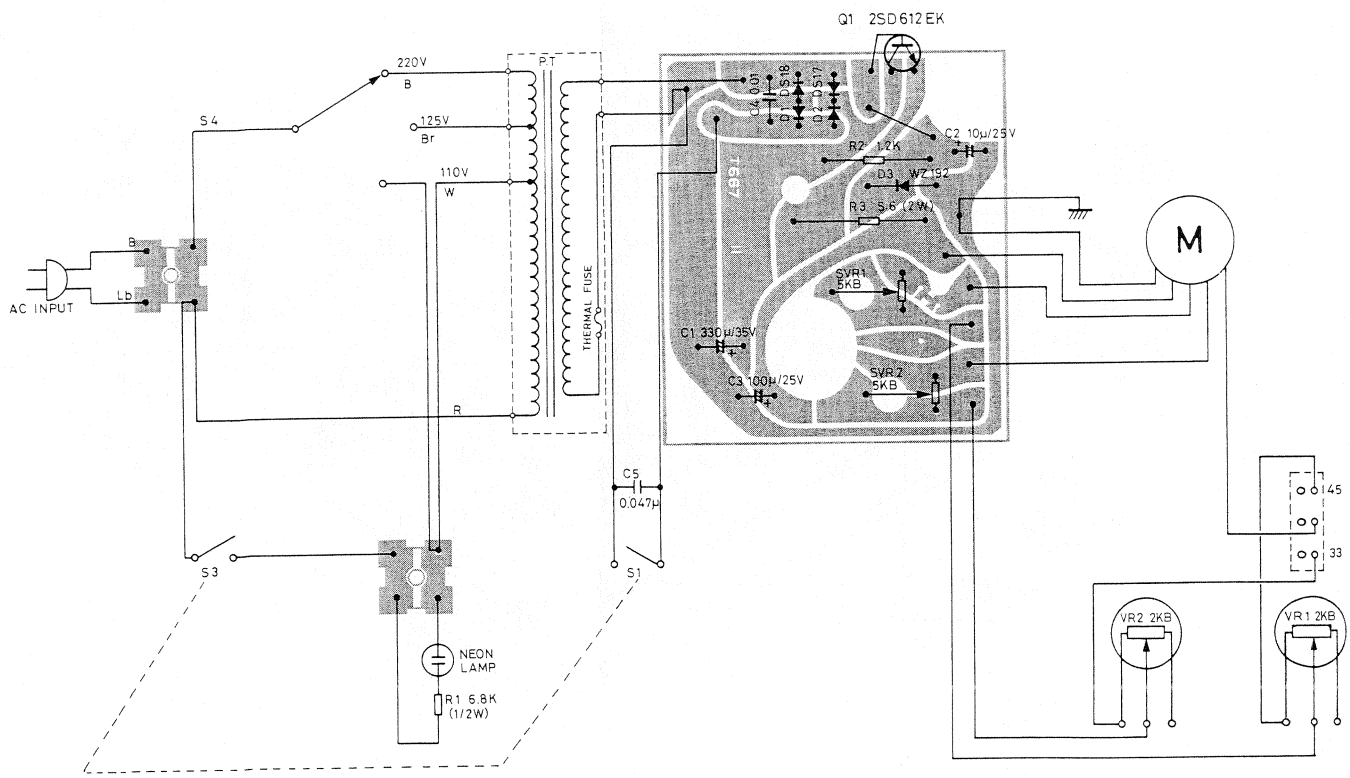


SCHEMATIC DIAGRAM



S1---POWER SWITCH
S2---SPEED CHANGE SWITCH
S3---NEON LAMP SWITCH
S4---VOLTAGE SELECT SWITCH

WIRING DIAGRAM



expert 1681 (CHAMPAGNE COLOR)

SERVICE MANUAL

SANYO

TP-1012 (CHAMPAGNE COLOR)

This is a service manual for model 1681 (Champagne color) and only items changed from original model (Black) are indicated.
For other items, refer to Service Manual for original model (Black).
* mark represents a non-interchangeable parts.

Key No.	Original model (Black)	Champagne color	Description	Remark
	PACKING			
	141-6-113T-85506	141-6-113T-85509	Individual carton	*
	141-6-310T-80000	Delete	Pad, Turntable	
	141-6-231T-25300	141-6-231T-25350	Inner Polyethylene Bag, Instruction manual	
	CABINET			
23	141-2-121T-14408	141-0-121T-14413	Deck Panel Assembly	*
31	141-2-464T-08700	Delete	Motor Leed Retainer	
44	141-2-151T-15302	141-2-151T-15304	Decorative Panel, Storob Base	*
45	141-2-131T-17300	141-2-131T-21000	Clear Window, Storob	*
49	Add	141-2-184T-07000	Tape 40mm, Storob	*
	ELECTRICAL PARTS			
103	4-243T-15100	4-243T-15171	Leed cord, Output cord	
	ARM			
121	141-0-286T-01021	141-0-286T-01020	Head shell Assembly	*
130	141-2-687T-01630	141-2-687T-01600	Weight	*
131	141-2-742T-13130	141-2-742T-13100	Lever, Head shell Finger	*

Add this sheet to Original Service Manual

SANYO ELECTRIC TRADING CO., LTD.
33, Hiyoshi-cho 2-chome, Moriguchi-shi, Osaka-fu, 570 JAPAN.

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